



where M is a hydrogen atom, an ammonium atom or a monovalent metal ion, R₁ is OH or NR₄R₅ wherein R₄ and R₅ each are H or C₁-C₆ alkyl; R₂ is H or an alkyl, alkenyl, cycloalkyl or aryl and R₃ is CO₂M.

2. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 1 in which the vinyl acetate based polymer comprises ethylene in an amount of from about 10 to 40% by weight of the polymer.

3. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 2 wherein the N-methylolacrylamide is present in an amount of from about 0.5 to 10% by weight of the polymer.

4. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 3 wherein the reducing agent represented by the formula is selected from the group consisting of: 2-hydroxyphenyl hydroxymethyl sulfonic acid-sodium salt; 4-methoxyphenyl hydroxymethyl sulfonic acid-sodium salt; 2-hydroxy-2-sulfonato acetic acid-disodium salt; 2-hydroxy-2-sulfonato acetic acid-zinc salt; 2-hydroxy-2-sulfonato propionate acid-disodium salt; ethyl 2-hydroxy-2-sulfonato propionate-sodium salt.

5. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 4 wherein the vinyl acetate based polymer emulsion is formed using a redox ^{catalytic} system of hydrophobic hydroperoxide and the glycolic acid adduct of sodium sulfite.

6. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 3 wherein M is sodium or zinc.

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7. (Twice Amended) The vinyl acetate based polymer emulsion of Claim 3 wherein R₁ is OH.

Response

This amendment is in response to the office action mailed on May 21, 2002. Claims 1-7 have been amended and are the only claims in the application. The newly amended claims of this response should overcome the objection to the amended claims filed with the response of May 5, 2002.

Applicants agree with the Examiner's reading of the respective claims as originally presented and as presented in the May 5, 2002 response. Applicants did not intend to change the composition claimed from that of an emulsion to that of a polymer. As the claims now stand they are directed to a vinyl acetate based polymer emulsion formed by emulsion polymerization. Therefore, it is believed the objection to the claims as filled in the previous amendment has been overcome. Examination of the invention under the statues may continue.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attachment is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,
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